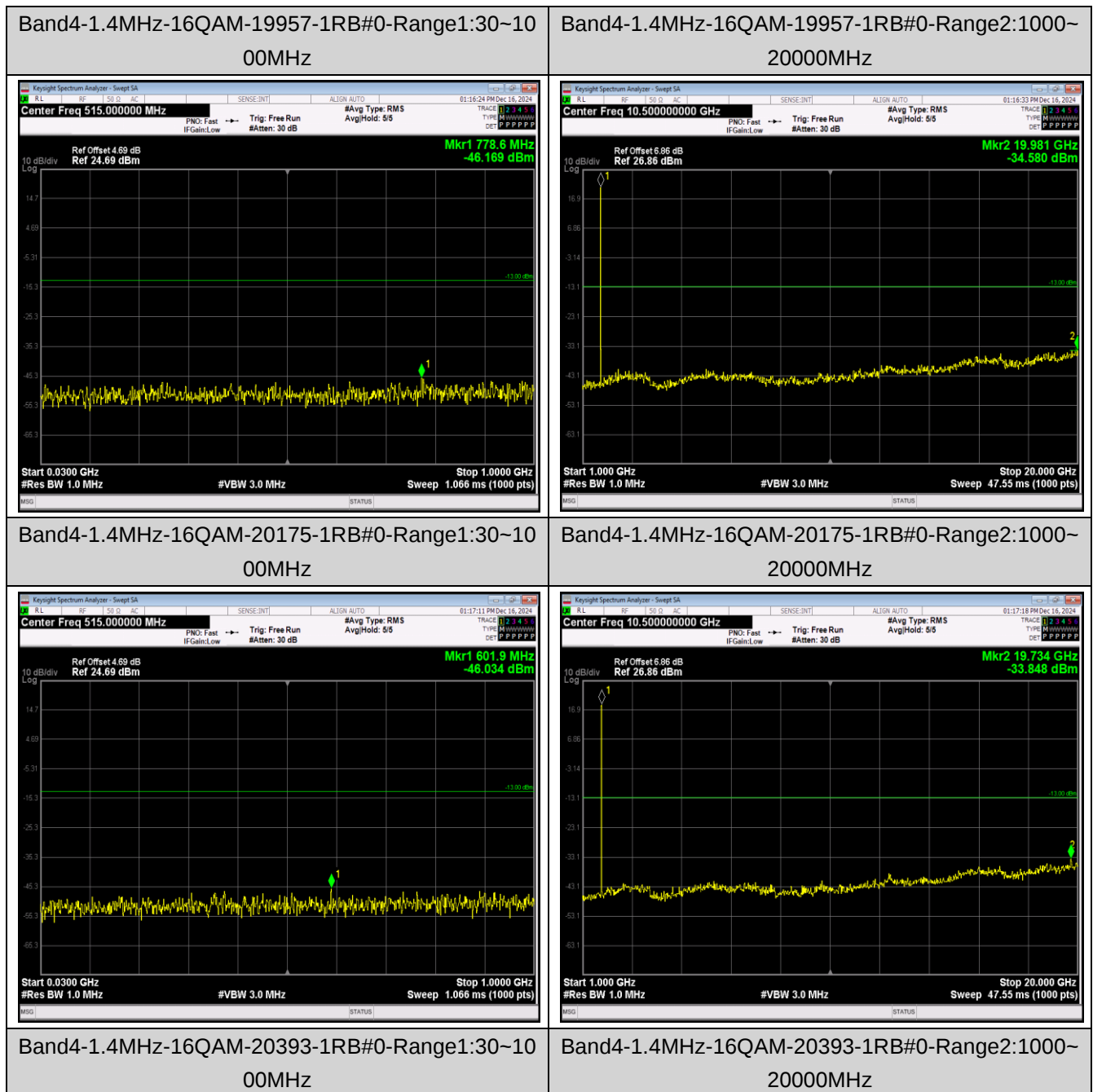
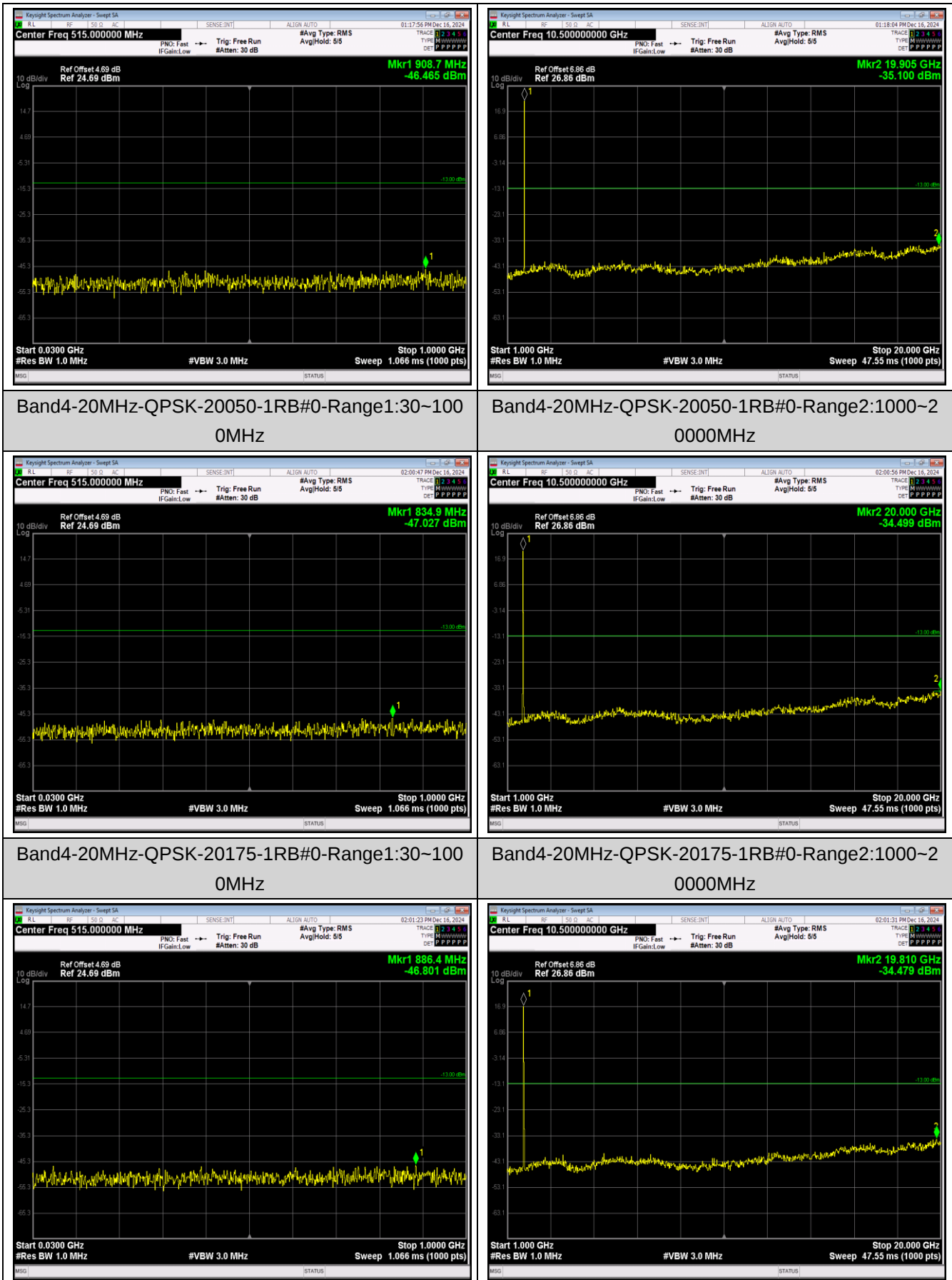
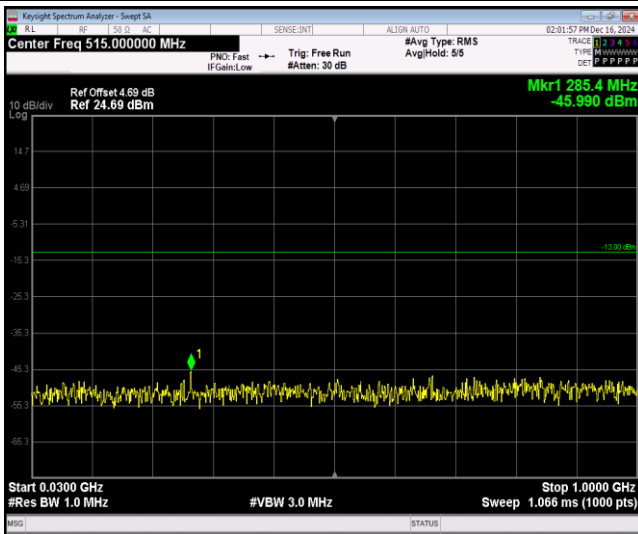


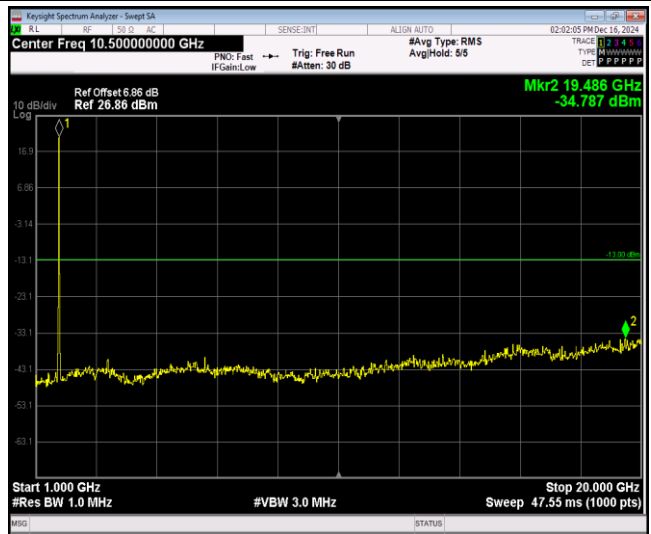




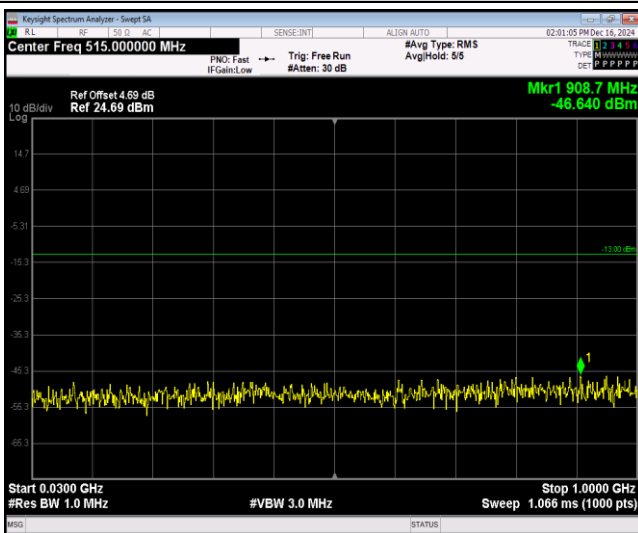
Band4-20MHz-QPSK-20300-1RB#0-Range1:30~100
0MHz



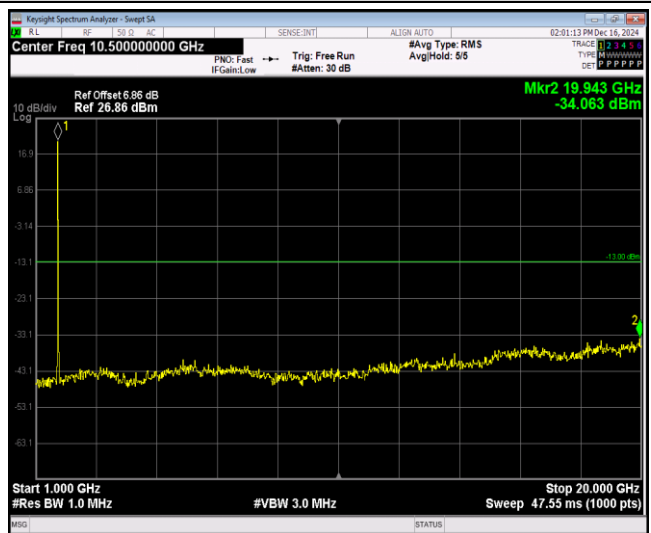
Band4-20MHz-QPSK-20300-1RB#0-Range2:1000~2
0000MHz



Band4-20MHz-16QAM-20050-1RB#0-Range1:30~10
00MHz

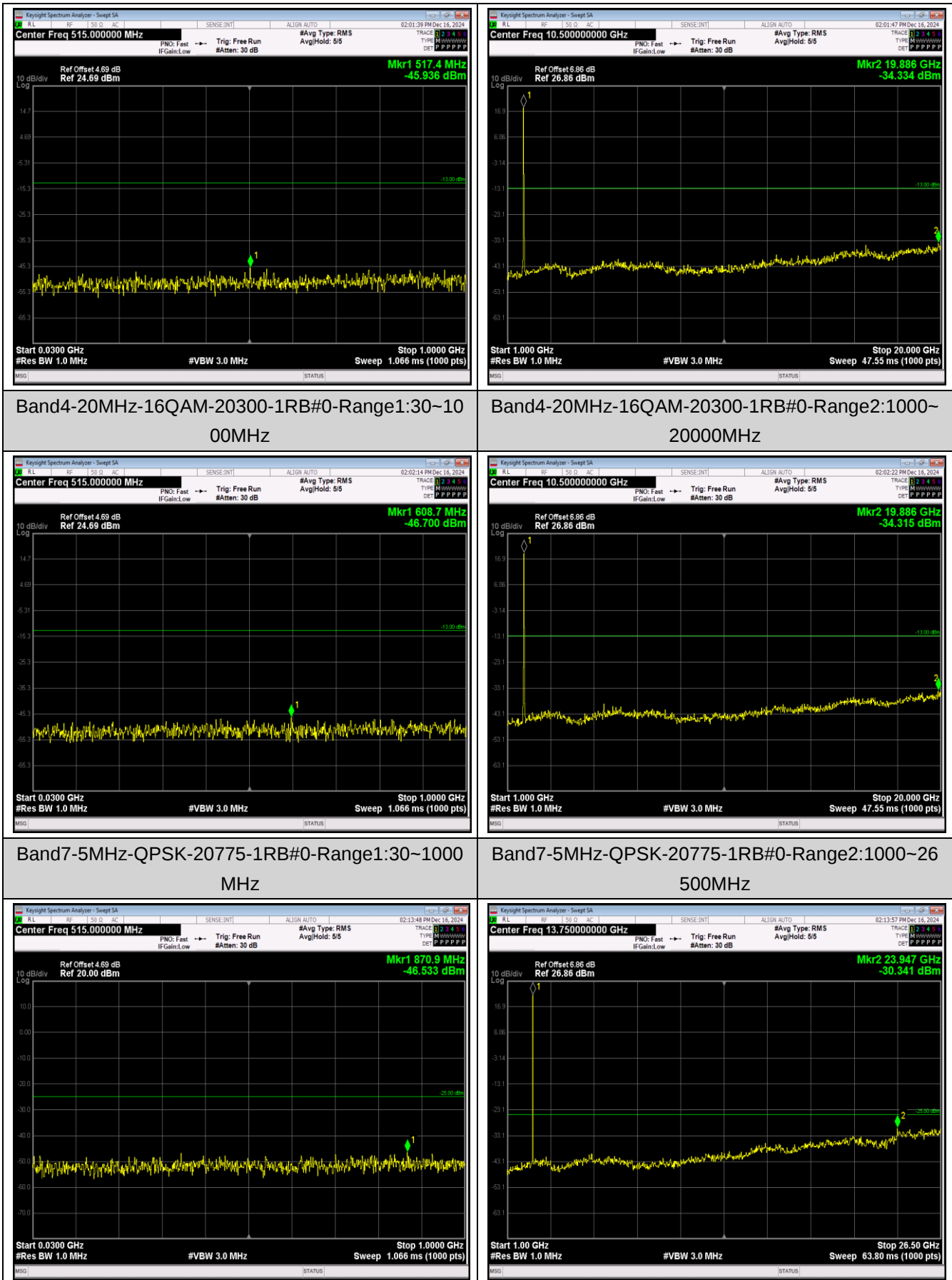


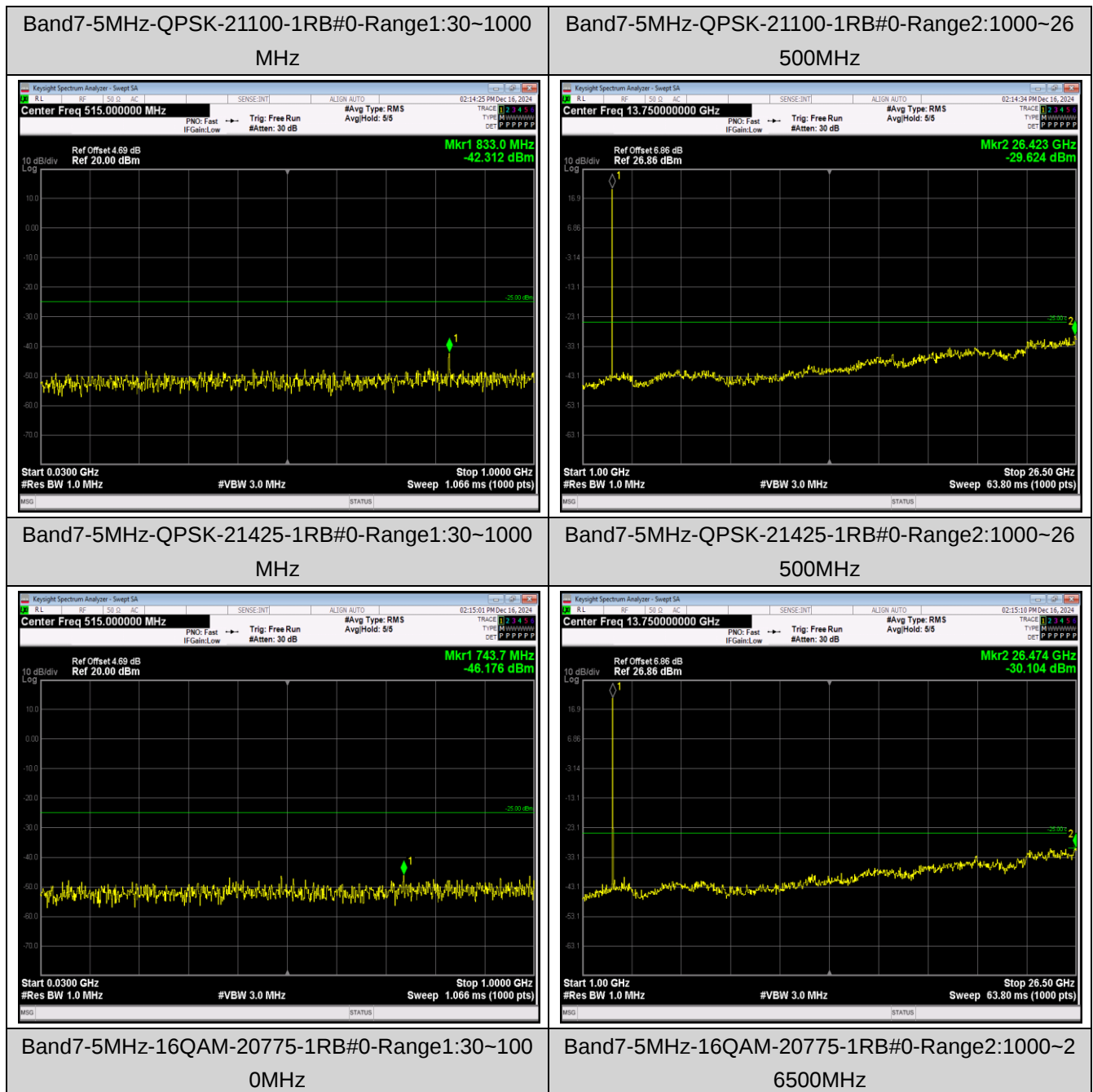
Band4-20MHz-16QAM-20050-1RB#0-Range2:1000~
20000MHz

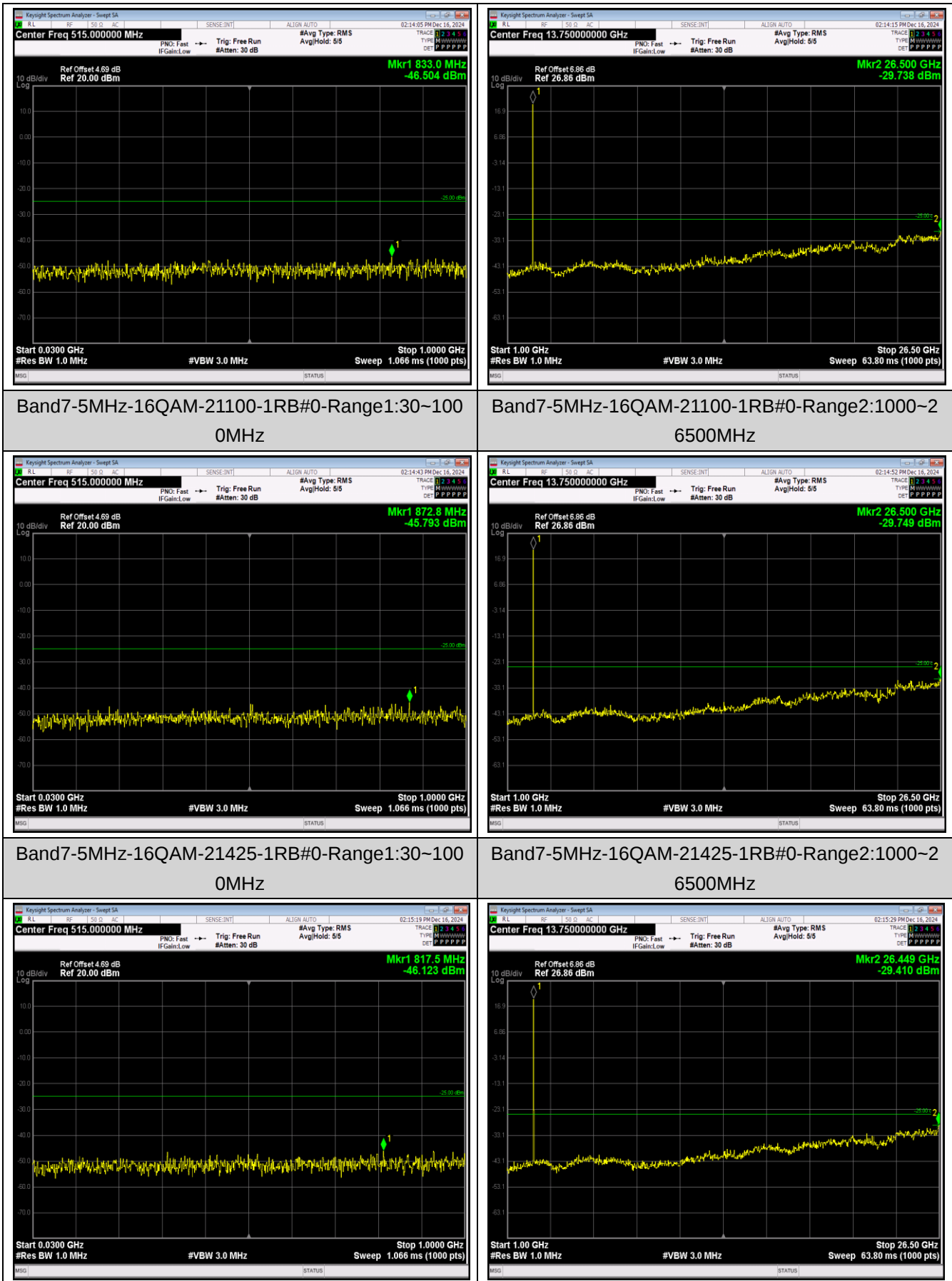


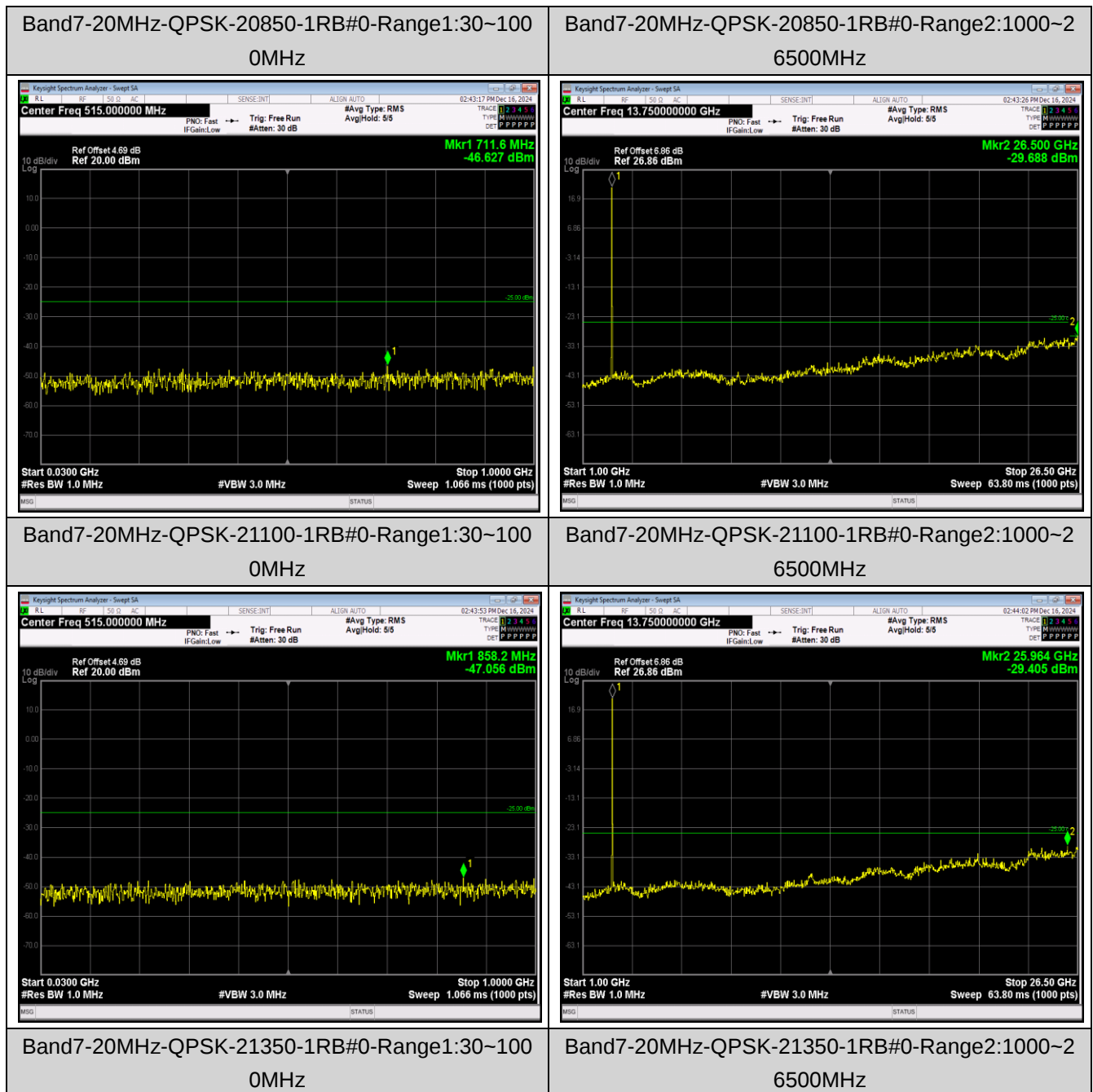
Band4-20MHz-16QAM-20175-1RB#0-Range1:30~10
00MHz

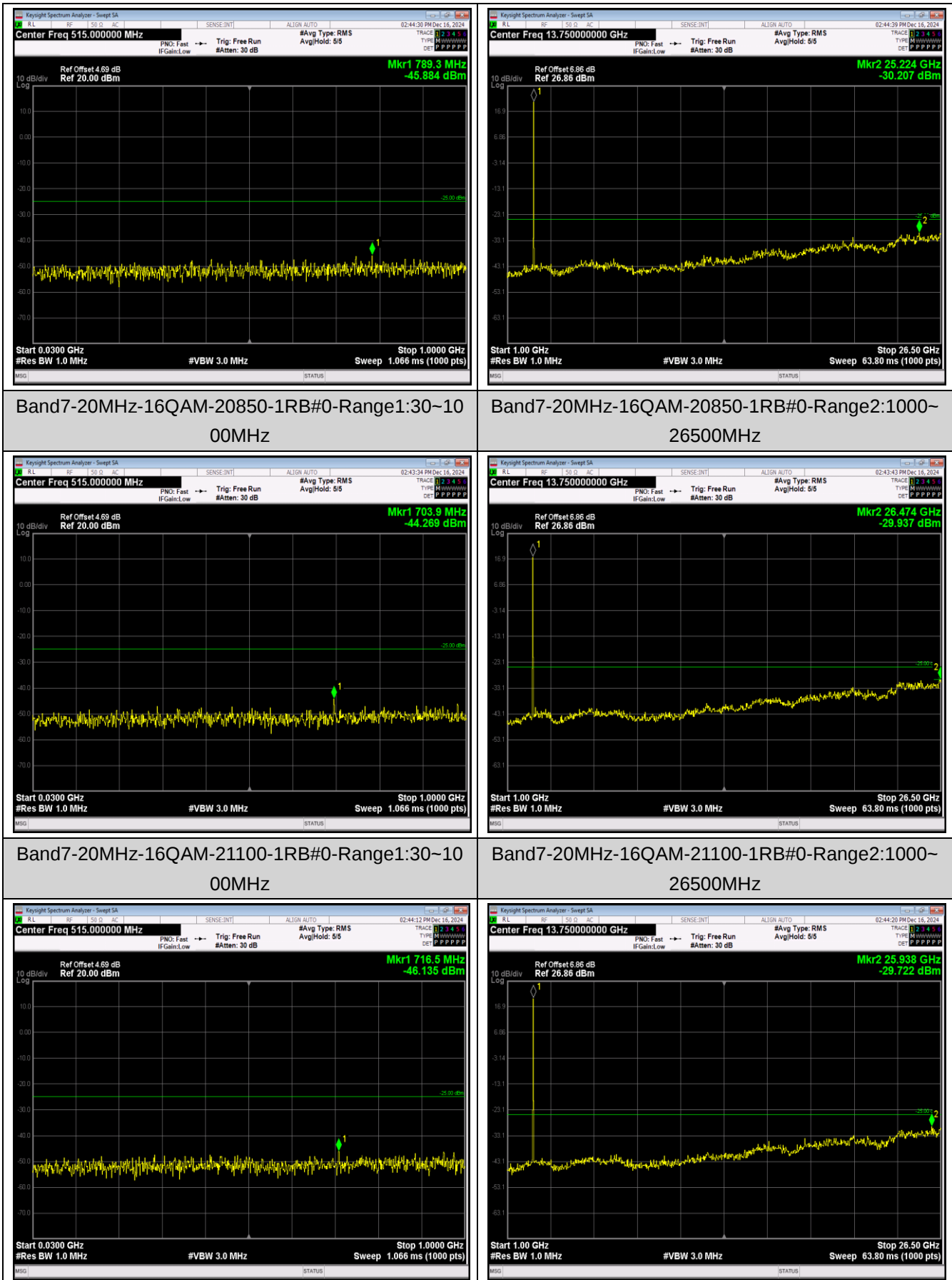
Band4-20MHz-16QAM-20175-1RB#0-Range2:1000~
20000MHz









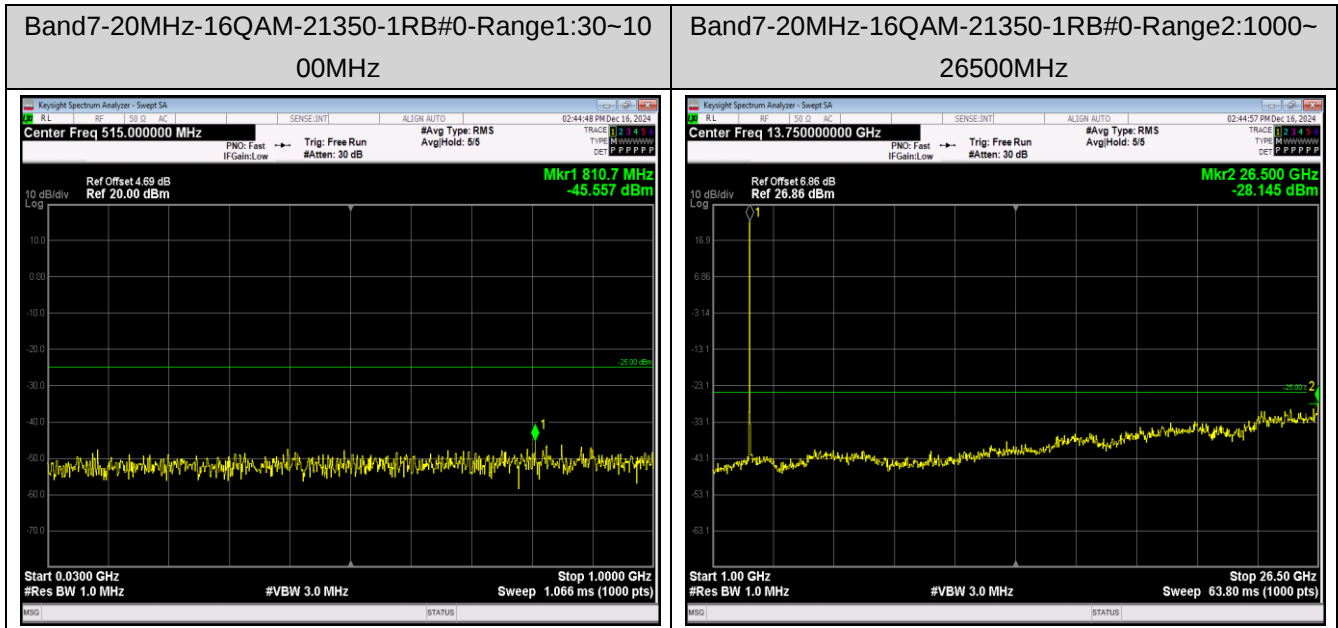


Band7-20MHz-16QAM-20850-1RB#0-Range1:30~1000MHz

Band7-20MHz-16QAM-20850-1RB#0-Range2:1000~26500MHz

Band7-20MHz-16QAM-21100-1RB#0-Range1:30~1000MHz

Band7-20MHz-16QAM-21100-1RB#0-Range2:1000~26500MHz



Appendix F: Frequency Stability

Test Result

LTE Band 2 part:

Reference Frequency: LTE Band 2 (10MHz) Middle channel=18900 Frequency=1880.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.70	-30	58.29	0.031005	Within authorized band for Band 2	Pass
	-20	29.53	0.015707		
	-10	43.76	0.023277		
	0	50.98	0.027117		
	10	39.98	0.021266		
	20	30.74	0.016351		
	30	21.67	0.011527		
	40	48.12	0.025596		
	50	39.71	0.021122		
16QAM					
3.70	-30	-33.62	-0.017883	Within authorized band for Band 2	Pass
	-20	-20.36	-0.010830		
	-10	-13.85	-0.007367		
	0	10.11	0.005378		
	10	22.73	0.012090		
	20	24.09	0.012814		
	30	34.10	0.018138		
	40	38.19	0.020314		
	50	46.79	0.024888		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.55	7.74	0.004117	Within authorized band for Band 2	Pass
	3.70	49.32	0.026234		
	4.20	53.03	0.028207		
16QAM					
25	3.55	-10.34	-0.005500	Within authorized band for Band 2	Pass
	3.70	5.49	0.002920		
	4.20	-29.00	-0.015426		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 4 part:

Reference Frequency: LTE Band 4(10MHz) Middle channel=20175 Frequency=1732.5MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.70	-30	36.06	0.020814	Within authorized band for Band 4	Pass
	-20	26.19	0.015117		
	-10	33.73	0.019469		
	0	12.09	0.006978		
	10	31.21	0.018014		
	20	15.16	0.008750		
	30	24.79	0.014309		
	40	8.65	0.004993		
	50	24.39	0.014078		
16QAM					
3.70	-30	12.45	0.007186	Within authorized band for Band 4	Pass
	-20	23.12	0.013345		
	-10	28.27	0.016317		
	0	30.51	0.017610		
	10	36.59	0.021120		
	20	37.55	0.021674		
	30	46.26	0.026701		
	40	7.72	0.004456		
	50	7.60	0.004387		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.55	44.85	0.025887	Within authorized band for Band 4	Pass
	3.70	44.79	0.025853		
	4.20	42.63	0.024606		
16QAM					
25	3.55	15.48	0.008935	Within authorized band for Band 4	Pass
	3.70	37.31	0.021535		
	4.20	14.26	0.008231		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 7 part:

Reference Frequency: LTE Band 7(10MHz) Middle channel=21100 Frequency=2535.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.70	-30	-16.31	-0.006434	Within authorized band for Band 7	Pass
	-20	21.10	0.008323		
	-10	24.02	0.009475		
	0	24.19	0.009542		
	10	-18.78	-0.007408		
	20	-34.56	-0.013633		
	30	10.36	0.004087		
	40	-21.23	-0.008375		
	50	-43.83	-0.017290		
16QAM					
3.70	-30	-46.91	-0.018505	Within authorized band for Band 7	Pass
	-20	-50.97	-0.020107		
	-10	-48.51	-0.019136		
	0	-48.01	-0.018939		
	10	-45.29	-0.017866		
	20	-32.29	-0.012738		
	30	-31.01	-0.012233		
	40	-27.28	-0.010761		
	50	-28.74	-0.011337		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.55	28.45	0.011223	Within authorized band for Band 7	Pass
	3.70	-29.03	-0.011452		
	4.20	27.82	0.010974		
16QAM					
25	3.55	-26.32	-0.010383	Within authorized band for Band 7	Pass
	3.70	-52.90	-0.020868		
	4.20	-31.81	-0.012548		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

Appendix G: Modulation Characteristics

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result	Verdict
Band2	20MHz	QPSK	18900	100RB#0	PASS	PASS
Band2	20MHz	16QAM	18900	100RB#0	PASS	PASS
Band4	20MHz	QPSK	20175	100RB#0	PASS	PASS
Band4	20MHz	16QAM	20175	100RB#0	PASS	PASS
Band7	20MHz	QPSK	21100	100RB#0	PASS	PASS
Band7	20MHz	16QAM	21100	100RB#0	PASS	PASS

Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.

Test Graphs

